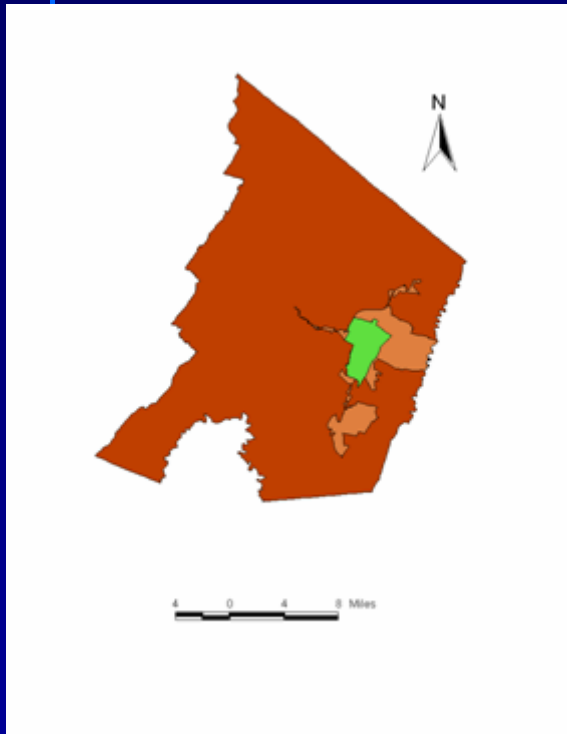


# Stormwater NPDES Phase II



City of Winchester,  
Virginia

July 7, 2005

# Stormwater NPDES Phase II

NPDES = National Pollutant Discharge  
Elimination System

MS4 = Municipal Separate Storm  
Sewer System = Winchester

BMP = Best Management Practice

# Stormwater Permits: Phase I vs. Phase II

- Approx. # of Phase I permits issued:
  - 130,000 construction sites
  - 1,000 large & medium MS4s
  - 120,000 industrial facilities
- Approx. # of Phase II permits anticipated:
  - 130,000 construction sites
  - 5,040 MS4s (EPA estimate)

# Phase II Coverage

- Municipally-owned Industrial facilities
  - Facilities with no exposure to stormwater can opt out of the NPDES industrial stormwater program
- Construction disturbing 1-5 acres
- Regulated MS4s within urbanized areas

# Small MS4 Permit Requirements

Required to develop, implement and enforce a storm water management program to:

- Reduce the discharge of pollutants to the maximum extent practicable.
- Protect water quality.
- Satisfy water quality requirements of the Clean Water Act.

# Schedule

- December 8, 1999 - Phase II Rule published.
- February 7, 2000 - Phase II Rule effective.
- December 9, 2002 - DEQ published General Permits.
- March 10, 2003 - Registration Statements due.
- March, 2008 - Phase II programs fully implemented.

# **Six Minimum Control Measures**

- **Public Education and Outreach**
- **Public Involvement/Participation**
- **Illicit Discharge Detection and Elimination**
- **Construction Site Runoff Control**
- **Post-Construction Storm Water Management in New Development and Redevelopment**
- **Pollution Prevention/Good Housekeeping for Municipal Operations**

# Minimum Control Measure: Public Education and Outreach

## MUST:

- Distribute educational materials to the community, or
- Conduct equivalent outreach activities about
  - the impacts of stormwater discharges on water bodies and
  - the steps that the public can take to reduce pollutants in runoff



# Minimum Control Measure: Public Involvement/Participation

## MUST:

- Comply with State, Tribal and local public notice requirements by providing opportunities for the public to participate, such as:
  - Local storm water management panel
  - Volunteer monitoring

# **Minimum Control Measure: Illicit Discharge Detection and Elimination**

## **MUST:**

- Develop a storm sewer system map of all outfalls and the names of all receiving waters.
- Prohibit non-storm water discharges, through an ordinance and implement appropriate enforcement procedures.
- Implement a plan to detect and address non-storm water discharges.
- Inform public of hazards associated with illegal discharges and improper disposal of waste.

# Minimum Control Measure: Construction Site Storm Water Runoff Control

## MUST:

- Develop a program to reduce pollutants from construction activities that disturb  $\geq 1$  acre.
- Use an ordinance, or other regulatory means, with penalties, that requires appropriate E&S controls and requirements to control waste.
- Have procedures for:
  - site plan review
  - site inspection & enforcement
  - public input

# **Minimum Control Measure: Construction Site Storm Water Runoff Control**

- Procedures that comply with Virginia's Sediment and Erosion Control guidelines satisfy this requirement

# **Minimum Control Measure:**

## **Post-construction Storm Water Management in New Development and Redevelopment**

### MUST:

- Develop program to address runoff from new development and redevelopment projects that disturb  $\geq 1$  acre.
- Implement strategies with a combination of structural and/or non-structural BMPs.
- Ensure adequate long-term operation & maintenance of BMPs.
- Develop post-construction storm water management ordinance.

# **Minimum Control Measure:**

## **Pollution Prevention/Good Housekeeping for Municipal Operations**

### MUST:

- Develop an O&M program to prevent or reduce pollutant runoff from operations.
- Include employee training to prevent and reduce storm water pollution from activities such as the maintenance of park and open space, buildings, and storm water systems.

## So where are we now?

- Implementation plan submitted to and approved by DEQ in 2003.
- Currently in the third year of implementation.

# Minimum Control Measure: Public Education and Outreach

- Booths at Wellness Festival, Earth Day Activities, Flower Home and Garden Show





# Minimum Control Measure: Public Education and Outreach

- Conservation Reserve Enhancement Project at Fay Spring



# Minimum Control Measure: Public Education and Outreach

- Rain Garden construction at Winchester Parks and Recreation site



# Minimum Control Measure: Public Education and Outreach

- Water Quality Workshop April 2005



# Minimum Control Measure: Public Involvement/Participation

- Determined priority area for storm water inlet marking.
- Approximately 100 inlets marked with storm drain markers by local scout troop. Willow Lawn Homeowners Association has volunteered to place storm drain markers on the (private) inlets within their development.



# **Minimum Control Measure: Illicit Discharge Detection and Elimination**

- Development of storm water system mapping.
- Hazardous spill response system maintained.
- Household hazardous waste collection program continued.
- Development of Illicit Discharge Detection and Elimination Ordinance initiated.



# Minimum Control Measure: Construction Site Storm Water Runoff Control

- Land disturbance permit application packages prepared. Requires applicants to submit copy of Notice of Intent for DEQ storm water construction permit.
- Wording added "Applicant agrees to control waste such as discarded building material, concrete truck waste, chemicals, litter and sanitary waste."
- Maintained DCR erosion and sediment review, inspection and administration for a minimum of two City Employees

# **Minimum Control Measure:**

## **Post-construction Storm Water Management in New Development and Redevelopment**

- Development of post-construction storm water management ordinance initiated.
- Cost analysis of VPDES Phase II implementation program performed.



# Minimum Control Measure:

## Pollution Prevention/Good Housekeeping for Municipal Operations

- Storm Water Pollution Prevention Pollution Plan (SWP3) developed for City Yards.
- Salt and vehicle reclamation building to be constructed 2005.
- Street sweeping program continues through the Public Works Department.
- Environmental Management System (EMS) for Water Treatment Plant under development.
- Mandatory EMS training for City Employees includes segment on water quality and highlights “no dumping” rule.

# Questions?